Work Order ID 101732

101732

May-13-13 1:13:03 PM

Item ID: D2432 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: 206 (24") Bearpaw

Start Date: 5/13/13 **Start Qty:** 4.00 *4* **Cust Item ID:**

Required Date: 5/31/13 **Req'd Qty:** 4.00 *4* **Customer:**

Reference:

Run Start *NR1*

Approvals: **Process Plan:** MLJ **Date:** 13-05-14 **Tooling:** **Date:**

QC: **Date:** **SPC (Y/N):** **Date:** **Stop** *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr D2432	**Revision Nbr** H								
120 *120* Waterjet FLOW CNC Waterjet	FLOW WATER JET **Memo** Cut Blank as per D2432 File	0.00 0.00				4	ø		AL 13-06-08
130 *130* HAAS 1 HAAS CNC vertical machine #1	HAAS CNC VERTICAL MACHINING #1 **Memo** 1-Inspect material for defects or damage prior to machining 2-Machine as per Folio and Dwg D2432 Identify as D2432F 3-Deburr	0.00 0.00	DP/ D.A 13/07/10; MH 13/07/10						
140 *140* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB **Memo**	0.00 0.00	DP/ D.A 13/07/10; MH 13/07/10						

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ______________	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ______________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
NCR No. ______________	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Work Order ID 101732

May-13-13 1:13:03 PM

101732

Item ID: D2432

Revision ID:

Item Name: 206 (24") Bearpaw

Accept *N900040100*

Setup **Start** *NS1*

Stop *NS2*

Start Date: 5/13/13 **Start Qty:** 4.00 *4*

Required Date: 5/31/13 **Req'd Qty:** 4.00 *4*

Cust Item ID:

Customer:

Reference:

Run **Start** *NR1*

Stop *NR2*

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00	DAS 44 9-89 13/07/11			4	Ø		
160 *160* Packaging Packaging	Identify as per dwg & Stock Location:______ Memo PPP 97745	0.00 0.00					13/7/12 (4)		
170 *170* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00					13/7/16		

RL 13-07-12

DQA: ______ Date: ______

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ______

Part No. ______

NCR No. ______

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other ______
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		______
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		______
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		______
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Picklist Print

May-13-13 1:13:03 PM

Work Order ID: 101732

Parent Item: D2432

Parent Item Name: 206 (24") Bearpaw

Start Date: 5/13/13 **Required Date:** 5/31/13

Start Qty: 4.00 **Required Qty:** 4.00

Comments: IPP REV:A 12.10.17 AS PER DWG REV.H DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB10 UHMW 1" Black		Purchased	No			120	sf	1,130.5550	**3.7**	**14.8** 14.8	Ae/ 13.06.08		

Location		Loc Qty	Loc Code	
MAT019		1130.554989		
	121278	12.0949895		
	122575	47.6		
	123229	53		
	123704	63.8		
	123949	6.96		
	124382	209.5		
	124758	337.6		124758
	125137	400		

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ____________ Part No. ____________ NCR No. ____________	**DISPOSITION** Rework ☐ Scrap ☐ Use-as-is ☐ Work Order Update ☐	**AGAINST DEPARTMENT/PROCESS** Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
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☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

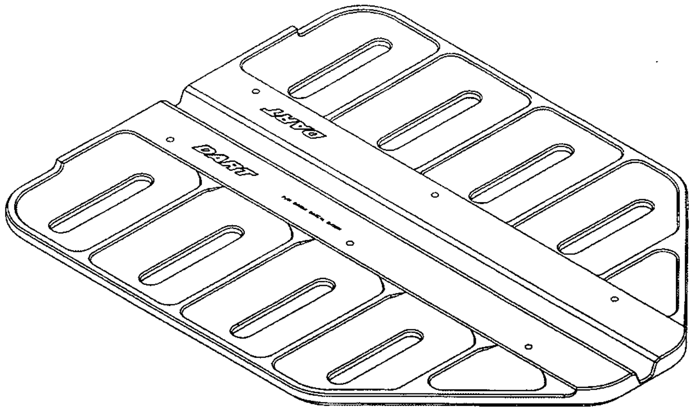
DART AEROSPACE LTD	Work Order:	101732
Description: Bearpaw	Part Number:	D2432
Inspection Dwg: D2432 Rev: H		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

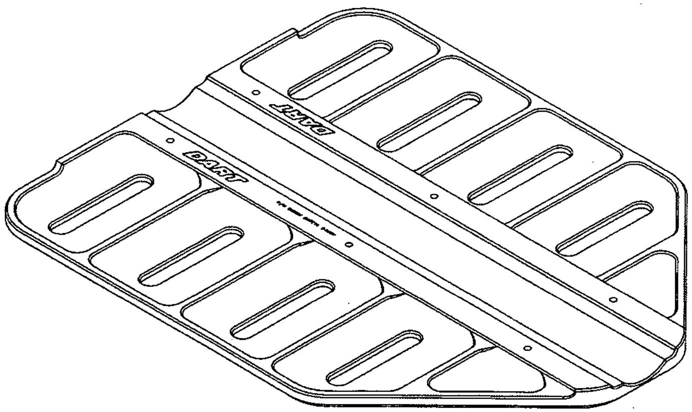
Inspection Sheet Drawing Dimension		Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A	0.063 x 45°	+0.030/-0.010	.070			DR 05	6" VERN
B	5.500	+/-0.030	5.498			DR 05	6" VERN.
C	0.200	+/-0.030	.204			DR 05	6" VERN.
D	0.25 x 45°	+/-0.030	.263			DR 05	6" VERN
E	R0.250	+/-0.030	.250			RADIUS GAUGE	
F	0.250	+/-0.010	.253			DR 05	6" VERN.
G	0.625	+/-0.030	.655			DR 05	6" VERN
H	0.375	+/-0.010	.374			DR 05	6" VERN
I	0.950	+0.030/0.010	.955			DR 05	6" VERN
J	19.000	+/-0.030	19.00			DR 15	
K	3.14	+/-0.030	3.14				
L	3.28	+/-0.030	3.28				
M	Ø0.260	+0.005/-0.000	.260			PIN GAUGE	
N	Ø0.93	+/-0.030	.930			DR 05	6" VERN
O	0.30	+0.030/-0.000	.315			DR 05	6" VERN.
P	23.750	+/-0.030	23.750			DR 15	
Q	7.375	+/-0.030	7.375.				
R	4.250	+/-0.010	4.260			DR 05	6" VERN
S	2.000	+/-0.030	1.998			DR 05	6" VERN.
T	9.000	+/-0.010	9.00			DR 08	12" VERN
U	9.000	+/-0.010	9.00			DR 08	12" VERN.
V	0.375	+/-0.010	.375			DR 05	6" VERN.

Measured by:	[signature] D.A	Audited by:	[stamp] 44	Preliminary Approval:	
Date:	13/07/10	Date:	13/07/11	Date:	

Rev	Date	Change	Revised by	Approved
A	04.01.09	New Issue P/O K10008/D206-559-015	KJ/RF	
B	12.07.31	Dwg Rev updated	KJ	
C	12.10.26	Dwg Rev updated	KJ [signature]	[signature]



D2432-3 BEARPAW



D2432F BEARPAW

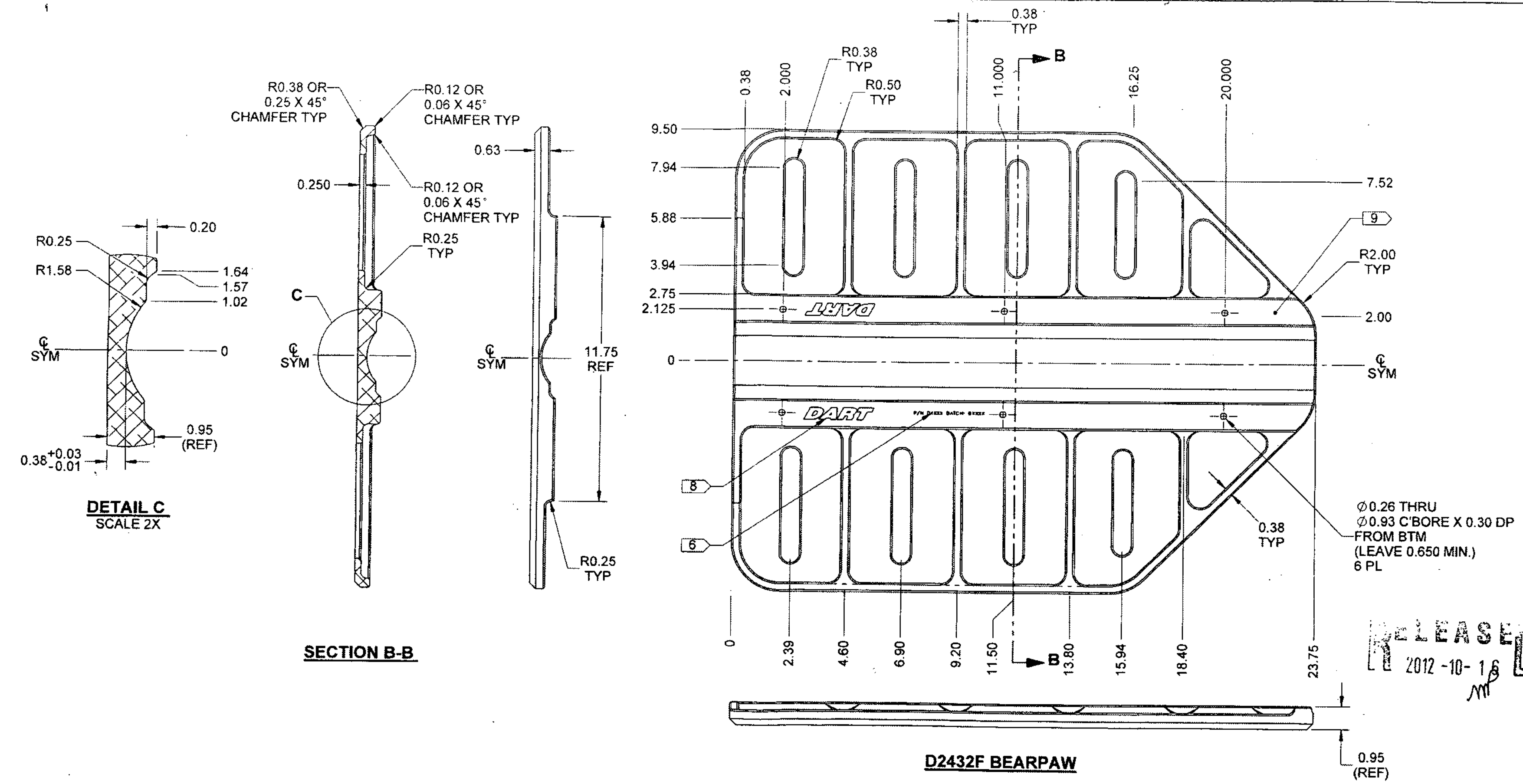
RELEASED 2012-10-16

101732 MLJ
13-05-14

REV.	DESCRIPTION	BY	DATE
H	RIB HEIGHTS CHANGED TO CONDITION OF REV. F. SEE REV. F FOR DETAILS.	AP	12.09.24
G	UPDATE DRAWING FORMAT, REMOVED D2432B, ADD D2432-3, ADDED DIMENSION 7.52 (D1-2)	AP	12.05.02
F	CHANGE C'BORE, ADD B AND F P/N	-	98.05.12
E	CHANGE C'BORE DEPTH, BORE RADIUS	-	97.02.27
D	MOVE SLOT	-	96.06.04
C	CHANGE BORE AND C'BORE DEPTH	-	96.03.26
B	RE-DESIGN	-	96.01.24
A	NEW ISSUE	-	95.10.31

DESIGN	LE	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	AP	
CHECKED	ASS	DRAWING NO. D2432 — REV. H — SHEET 1 OF 3
MFG. APPR.	[signature]	
APPROVED	[signature]	TITLE BEARPAW — SCALE NTS
DE APPR.	[signature]	
DATE	12.09.24	

101732

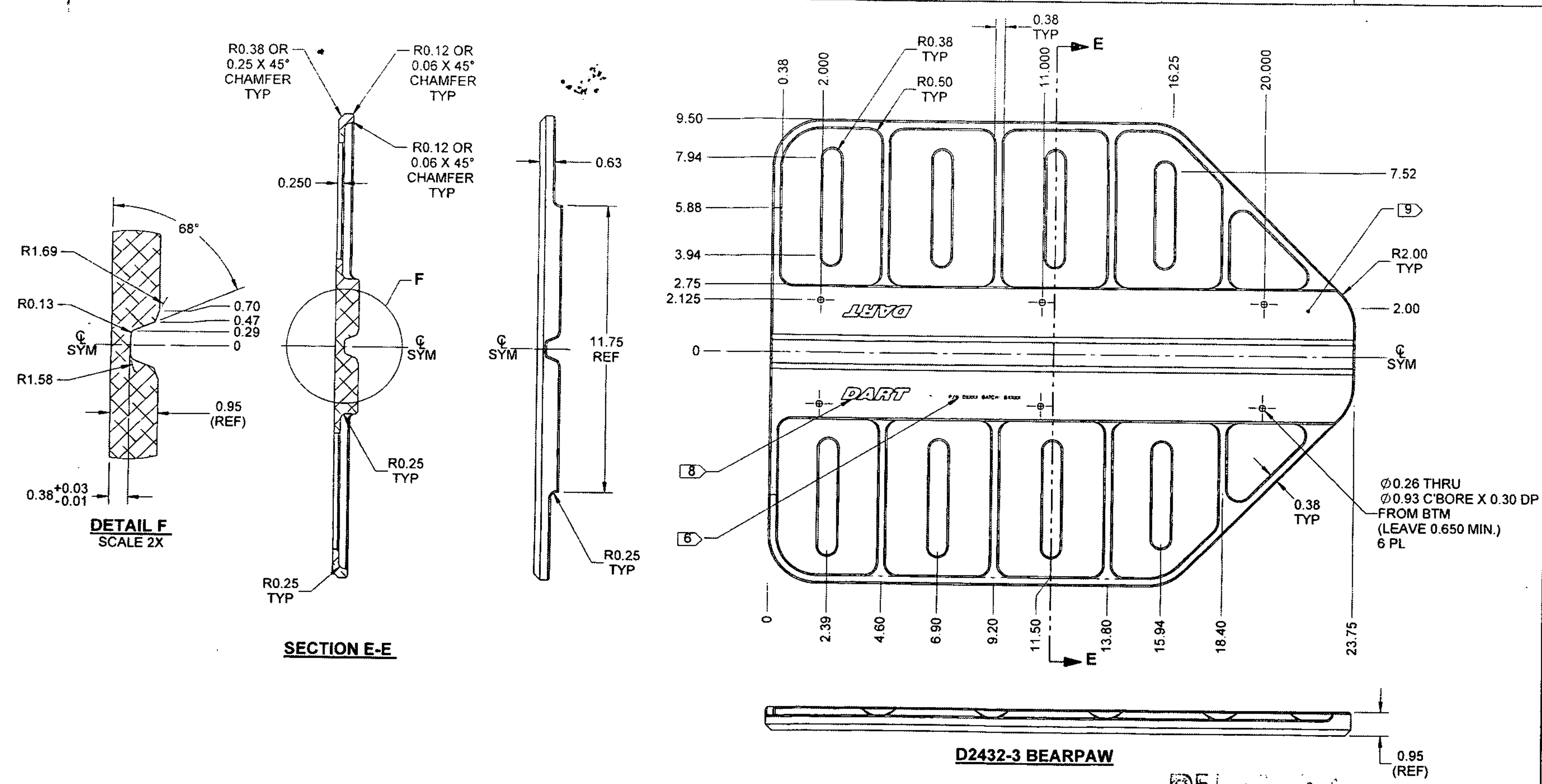


NOTES:

1) MATERIAL: UHMW BLACK TIVAR 1000 VIRGIN MATERIAL, 1.000 THICK MACHINED TO 0.950 (REF DART SPEC. MUHMWB10)
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: ENGRAVE PART NUMBER "D2432" AND BATCH NUMBER "BXXXXX" IN ACCORDANCE WITH QSI 044 METHOD 6.3
7) WEIGHT: 5.87 lbs
8) ENGRAVE DART LOGO TO MAX DEPTH OF 0.012
9) APPLY 0.06 x 45° CHAMFER TO ALL EDGES ON SIDE SHOWN UNLESS OTHERWISE INDICATED
10) PROFILE PER DRAWING FILE "D2434F-REVH.STP"

DESIGN	LE	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	AP	
CHECKED	ASS	DRAWING NO. D2432 REV. H SHEET 2 OF 3
MFG. APPR.	[illegible]	
APPROVED	[illegible]	TITLE BEARPAW SCALE NTS
DE APPR.	[illegible]	
DATE	12.09.24	

101732



RELEASED 2012-10-16

NOTES:
1) MATERIAL: UHMW BLACK TIVAR 1000 VIRGIN MATERIAL, 1.000 THICK MACHINED TO 0.950 (REF DART SPEC. MUHMWB10)
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: ENGRAVE PART NUMBER "D2432-3" AND BATCH NUMBER "BXXXXX" IN ACCORDANCE WITH QSI 044 METHOD 6.3
7) WEIGHT: 6.25 lbs
8) ENGRAVE DART LOGO TO MAX DEPTH OF 0.012
9) APPLY 0.06 x 45° CHAMFER TO ALL EDGES ON SIDE SHOWN UNLESS OTHERWISE INDICATED
10) PROFILE PER DRAWING FILE "D2432-3-REVH.STP"

DESIGN	LE	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	AP	
CHECKED	AJS	DRAWING NO. D2432 — REV. H — SHEET 3 OF 3
MFG. APPR.	[signature]	
APPROVED	[signature]	TITLE BEARPAW — SCALE NTS
DE APPR.	[signature]	
DATE	12.09.24	